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Continued from first page

just a few weeks after their High Court action against a software exchange shop.

Mr Charnes, who requested membership to enable him to go to 40, said the association would apply standards to what was an unregulated industry.

The association, affiliated to the 100 member Computer Trade Association, would also set own prices and software licenses and advise its overseas agents.

He said: "If there are several of us working together we can be far more effective."

And Malcolm Evans, partner in New Generation, said: "Our code of conduct will mean the customer will know what he's getting and where he stands. It will give him the assurance and confidence in our members' products — by his own conduct if we don't live up to our promises."

Salesmen's partner Pete Nade said programmers would be protected by a code of conduct of their software because made no real effort to market their programs or changed a few lines and claimed it as their own.

And the software companies would be protected if, for example, a programmer swapped equipment and services and then sold his program to another firm.

The companies were meeting last week to get the final word of their association. Membership fees are expected to be in the £250-£1,000 range — with, possibly, a two-tier arrangement — and the plan is to have a full-time secretary. *Quintus, 71 Palmerston Road, Southampton SO9 1LL.*

Software by Jupiter

If you've got a Jupiter Ace, you'll be pleased to hear that the fine of Jupiter Canada's software range for the Ace is available now.

Of the 15 titles, three are for the Ace expanded by the recently

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Software Supermarket

Continued from column 1

announced IBM RAMpack. There are GoldMedal (a Freeman look-alike), Zenith and Photos, and Oracle. They all cost £7.95.

The other twelve include thinking games, action games, and a monitor which allows you to "explore the way we live of the Ace", all for £3.95 each.

And, there's more! At the Euro Computer Fair at the end of the week, Jupiter Canada hope to show about five educational games, which according to Steven Altmann will be "physics/math oriented". A spreadsheet program, a chess program, an assembler and an adventure game are also in the pipeline.

At the show, the Ace will be seen putting a robot arm worked by Cyber Robotics of Cambridge through its paces.

At present, all the Ace programs and the two RAMpacks are available only by mail order, and orders should be sent to Jupiter Canada's new headquarters at the address below.

Steven Altmann also had a message for Ace owners still waiting for a 48K RAMpack: "We haven't forgotten you. The RAMpacks should be sent out shortly — this week, we hope." Jupiter Canada, Chalkers Building, Newman Street, Cambridge CB2 3LZ.

Lighten your load

A solution to the problems of ZX tape loading and saving — that's what Elcom is claiming for its new ZX copier.

By timing and stabilising the signal going into or coming from the computer, the loader is designed to provide a constant signal ideally matched to the ZX81 or Spectrum. It then can take from the tape recorder, and you can change from loading to saving just by turning a switch.

Price: £14.95

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⇒ MODEL B (or A+32K)

Cassette 4: Bomb-Bomb (Super Brian Game) **£4.50**

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Cassette 6: Super Hangman (animated, educational) **£4.50**

Cassette 7: 3D Maze (text and micro) **£4.50**

Cassette 12: Flags (Countries and Capitals) **£4.50**

⇒ CASSETTE 9

Contains model B Invaders. A superb feature adaptation of the arcade 'Space Invaders' game in machine code and hi-resolution colour graphics for the BBC Micro model B (or A+32K). Play normal game or choose from the many options including Missile, Bomb and Invader speeds, Invisible Visible and Shields no Shields. Guide simply the best. **Only £2.50 for MODEL B (or A+32K).**

⇒ CASSETTE 10

WORDPRO. Cassette based word processor for either Epson or Serkome printers. Features right hand justification, align, insert, delete, pages to tape, printer mode changes from within text line etc., etc. Complete with manual. **Only £10.00 inc.**

for MODEL B (or A+32K)

⇒ CASSETTE 11

ATLANTIS. The superb fast action arcade game written in machine code to illustrate to the full the machine's fantastic colour graphics and capabilities. This game includes all the usual ATLANTIS/SCRAMBLE features. Guide your submarine from the along the undersea landscape and through the dangers, avoiding mines, depth charges, rockets, jelly fish, serpents etc. **Only £2.50 inc.**

For MODEL B (or A+32K)

⇒ CASSETTE 13 - HYPERDRIVE

A new, very addictive machine code arcade game. Guide your laser tanks around the network of passages destroying the drone Aliens - but beware, evil OTTO lies in wait! **Only £6.50 inc.**

For MODEL B (or A+32K)

⇒ CASSETTE 16 - STRATOBOMBER

Another new highly colourful machine code arcade game. Can you keep the enemy fleet at bay long enough to destroy the nuclear reactor of the rogue Star Ship before it destroys your home planet? Superb graphics. **Only £2.50**

For MODEL B (or A+32K)

NEW CASSETTE 18 - LEAP FROG

The fabulous 'frogger' arcade game reaches the BBC micro. Superbly written full colour machine code version for the Model B (or A+32K). Help the frog cross the road avoiding the vehicles travelling at different speeds, and cross the main current river to reach the safety of the lily pads. The game gets progressively harder - perfect for arcade addicts. **Only £7.50 for MODEL B (or A+32K).**



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Steve Hillage — musical and computer collected

Continued from page 1

He said: "In 10-15 years time you will be able to buy a package which will have music and graphics. It will be a new art form, like a musical sculpture on the screen."

"If they can get memory chips up to megabytes there will be 'records' less than two inches across which you'll play on your headphones."

Although he has written in

BASIC, he said: "I'm very aware of limitations of BASIC. In odd moments I'm learning LISP. They say that once you've learned it this changes your conception of reality. I don't say that I've got that far."

Virgin Games is part of Richard Branson's Virgin Records empire which has grown from a discount record store 10 years ago to a group of about 30 companies with a combined annual turnover of £35m.

Today's eight releases are to be followed by more batches of eight in September, October and January.

As an experiment, Virgin record stores in Portsmouth, Sheffield and York will be stocking up to 500 Spectrum titles.

And Mr Alexander expects other record shops — not only Virgin's — to start selling computer software, although it will only be a small part of the market.

Thamesme, he said, was that the record industry had been hit by a cyclical decline. It would recover, but even to the same sales as the mid '70s.



Paul Alexander — putting music on software packages

Virgin Games, 81-83 Portobello Road, London W11 1ND



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Top Ten programs for the ZX81

1	Flight Simulator	Pilot (1)
2	3D Monster Maze	Nano Commander (3)
3	Chess	Pyon (4)
4	OS Scanner	Quadrino (2)
5	Cometwin	J. N. Greer (3)
6	Calculus	Arco (7)
7	Space Raiders	Pyon (2)
8	Allen Grouper	Silverbolt (-)
9	Arcojet	Arco (-)
10	Ten Quins for TR	J. N. Greer (3)

Compiled by M. H. Smith. Figures in brackets are best week's figures.

Top Ten programs for the VIC-20

1	Intro to Basic 1	Cometwin (3)
2	Race	Cometwin (2)
3	Blitz	Cometwin (4)
4	Strategic Advance	Cometwin (-)
5	Power	Bag Byte (1)
6	Asteroids	Bag Byte (7)
7	Cometwin	Bag Byte (2)
8	Blackie Winters	Imagin (2)
9	Arcojet	Arcojet (3)
10	Intro to Basic 2	Cometwin (-)

Compiled by Smith. Figures in brackets are best week's figures.

Top Ten programs for the Dragon-32

1	The King	Microworld (1)
2	Space War	Bag Byte (2)
3	Osborne	Microworld (4)
4	Arcojet	Microworld (3)
5	Katapult Attack	Microworld (-)
6	Space Simulator	Microworld (-)
7	Marathon Adventure	Dragon (2)
8	Chess	Dragon (-)
9	Typing Tutor	Silverbolt (-)
10	Graphic Trek	Dragon (-)

Compiled by Smith. Figures in brackets are best week's figures.

Top Twenty programs for the Spectrum

1	Flight Simulator	Pilot (1)
2	3D Monster Maze	Nano Commander (3)
3	Chess	Pyon (4)
4	OS Scanner	Quadrino (2)
5	Cometwin	J. N. Greer (3)
6	Calculus	Arco (7)
7	Space Raiders	Pyon (2)
8	Allen Grouper	Silverbolt (-)
9	Arcojet	Arco (-)
10	Ten Quins for TR	J. N. Greer (3)
11	Flight Simulator	Pilot (1)
12	3D Monster Maze	Nano Commander (3)
13	Chess	Pyon (4)
14	OS Scanner	Quadrino (2)
15	Cometwin	J. N. Greer (3)
16	Calculus	Arco (7)
17	Space Raiders	Pyon (2)
18	Allen Grouper	Silverbolt (-)
19	Arcojet	Arco (-)
20	Ten Quins for TR	J. N. Greer (3)

Compiled by M. H. Smith. Figures in brackets are best week's figures.

Programming
What's the point?

It was less than a year ago that I first sat down at a microcomputer and properly started the days. Having failed my Physics O-level exam before, and knowing as much about electronics then than I know now, I didn't have the faintest idea what was on beneath the keyboard.

For the first few hours I lived in fear. What if I typed in the wrong characters, and did some irreparable harm to my friend's computer? Even when reassured that this was unlikely to happen, I couldn't relax. How could I be sure, with time the dial drive wheel that it wasn't saving out valuable information?

But despite this nerve-wracking start, the experience left me hooked. I bought a few more machines, together with several software packages. As a writer, the value of word processing was quite obvious to me, and I could see that spreadsheets were useful even though I didn't have much on the way of finances to play with.

Not buying ready-made software was, I felt, just the beginning. I sought to be learning BASIC and creating my own programs. At the very least, I sought to be saving them out of the magazines I was buying.

So I started poring through the BBC manual. I learned how to set up a simple game, how to transfer the items of a list, work out percentages and the use of scrolling windows. Each time I produced a program that worked I had a tremendous sense of achievement. But there was always a nagging doubt at the back of my mind about the relevance of it all. Whenever I sat down to use the computer for something I really needed to do, like word processing, there was a program already written for the purpose — and nothing much better than I could ever hope to achieve myself. So what use could one be put to?

Then I saw the light. I'd been deluded by the general notion of use following that it wasn't really necessary to use my computer without having a program in. But supposing the benefits of the micro world I'm now here to do with understanding how it works. After all, most people spend hours on their cars, doing this and that, and pushing that whole where drive thousands of miles knowing nothing of what goes on under the bonnet. There's no "right" and "wrong" way to graduate creating a car.

In just the same way, you can use the most complicated business program, or play the most daunting game, and still think there are little green men running around under the hood during all the work. However, people must not on the whole suppose more could be for them because then, first that, in order to use a computer, they must first be expert programmers.

So that's why I've given up programming. As a member of a computer club, and just like dealer in software, my interest in it is as great as it ever was. But I no longer feel guilty when I can't remember the difference between PEEK and POKE, or get lost on the 8 bit bus.

If the game works, don't check it — play it!

Malcolm Beames
Writer and software dealer
London

• This space is for you to scribble all about the more minor, or general, thoughts of the last fortnight. Please write them in, writing them in, Paul Gifford, Olympia House, 1, Longway Works, 141, Longway Road, London W1, SW1H. Please include your occupation and your interest in computing.

Micro users are brighter, says survey

Overall, a study of more than 1,300 managers from all of our 58 countries said that more managers were using personal computers at almost three of four, that more than half were using personal computers, and that more than half were just getting acquainted with personal computers.

The study also revealed that homages that are associated in consumers are also homages that protect the brand equity for such other consumer benefits.

The firm doing the survey specified that respondents would have to indicate the message a computer was most different from their typical response. (One of our market researchers felt it clear in that way as to avoid the intelligence of virtually everyone who has not even used your software, that was encouraging direct to me. Perhaps that is how you felt a computer was.)

However, I really do hope that it indicates that people generally actually *do* use computers and to think, no higher than averages of. Their studies will continue to be done every six months, it will be interesting to study the results over the long run.

I can regulate the display now — Use a mouse to stop moving
and zoom in!



On the software side, Floren's CMM is harder name to use. Adversely, I have been equally aggressive in recommending their latest software. The end user simply has access to the world of their own money.

Over grape vines? Or Southern exp. Rains? It will become, not just a building, it is a building, give us the church, with a building, across the street and building, first. On the opposite side of the street, on the first floor, and here it will, grapes, then, beyond into the building, — building, the building, of course.

The paper is not written based on the view of the writer, but on the evidence available in the literature.

It's not a good idea to put gold — lots of people over there have lost their money. Don't look at me. I've never seen it. I wouldn't take any other offer.



And now for something different: Here about a magazine, an advocate for the VHS. *20th Century-Fox's* available from Cook Books. Each issue, one per story, contains an unusual cover, and three comment.

The news publisher who produces an electronic magazine for the FET called *Canine*, and this new effort is monitored as a helpmate to its counterpart. Each program uses the FET's graphics and color capabilities.

As pointers there are three volumes out. One and Two work well, just a basic PC, but Three requires both memory expansion and a graphics. A color screen is also recommended. Each volume is introduced by an instructor's slide presentation, a program directory. You can become members of the Society of Area Work.

Each game is profoundly slow, very user friendly, free to play, and totally enjoyable to watch being played on either computer or television.

Each volume comes with its own book of discussion containing exercises on the use of each genre, and also a student section which describes the features and live cell game in plain English (well, American anyway). The B-MC code is unproblematic, and the publisher encourages its users to study and learn.

Figure 10. The most widely accepted scenario is called "Scenario 1", in which

But I can program your own special characters by changing the usual numerical letters. If desired, you could change the entire character set to make special characters the program's only source designed to be used as a "PC" in the computer's memory and

The negotiators are paid quite reasonably at \$750 each, plus shipping and handling. For details, write to Clyde Murillo, Sales Manager, Suite 204, Route 6000, C/O BTL, Inc., 1001 S. 10th St.



While attending the recent West Coast Computer Fair, I purchased a few new products but none to use at home.

One among them is *Sarva On Line*. At least three of its products may be worth your while. There are called *Jambhakar M*, *Minsantra* and *Fragger*. *Jambhakar* is Sarva's version of the read and tear Fax man, which has been redesigned after battles with users over remote connections.

The Savini game, designed to run on the Atari, is very well suited to regular game play, a nice twist accompanying the correct, and when the music is ready to continue the game from that otherwise clear of the music changes to a completely empty with lots of music chords. Three musical sound in each which great sound quality quite close to real life, not perfect. A musical sound works better than popular music, it increased level of play the music sounds on "double time" the music.

The game comes in with a price tag and a range of difficulty that can be user-adjusted to run from very slow to very fast. The game will run on either Atari, and is available on disc, PC/Macintosh, or cassette.

Admirable as really two games in one. In one element your spaceship must avoid and destroy enemy air-crews! The other element of the game is Bernini-like corridor shoot-out. It was like one game's better than the other. You win only if you do both.

Blair's version really does do credit to the original as a well-told, well-paced, carefully chosen, and well-acted film.

Servis has really put together a fine line of products for the four-wheel Apple as well. You can wear to them for a full color catalog. Servis On Line, Servis On Line Building, Camarillo, California 93616, (805) 433-0833.



I got a good chuckle out of the man announcing from the House that there is no reason to make a further expenditure for the launch on the death of a woman?

This wonderful little device is to be inserted in the top of each of the main storage tanks, where, when exposed, temperature, water rate and so forth. Then, in conjunction with a small digital display, it will compute the water usage. I'm sure this will shut off the supply when you get about 10 times as much water as after playing more involved for 100,000 gallons. Don't you all want this in California?

Word Bank
Write/Draw *at the bottom*

Microfair at Ally Pally: Your guide to the best of the new ideas

Mike Johnson moved his ZX Microfair to north London's Alexandra Palace — to the relief of visitors and exhibitors.

Although attendance dropped by just a few hundred to around 8,000, there was twice as much space in the giant stadium.

Since Mr Johnson's, a 39-year-old civil servant, started his shows in September 1980 with a team of friends they have enjoyed two other halls.

And as soon as the seventh show ended at 8.45 pm when he began planning his next for August 20 at the same place, hoping that Sinclair's long-awaited Microdrive mass storage device will then be available.

After spending 12 hours on his feet, Mr Johnson said: "I'm as tired as a dog. It was a real strain — that's always a bit risky — and at the end of the day and I was a little worried. But I was fairly confident we would get a good turnout."

"I'm pleased we had the attendance. But it was still a little bit short of around 15,000-12,000."

"I hold the shows roughly every three months because that's about the time when there are new products and the possibility of new hardware from Sinclair."

Mr Johnson said the number of exhibitors was up by about 40 to 130 and wanted that stand space, at prices £80 minimum, would not rightly mean, although the entrance fee would remain the same at £1.

He said: "Next time I'll be looking to do more features, like a talk by a well-known speaker. I don't know if we could get Cliff."

"The other complaint did not get off the ground because of lack of support. I suppose that's because the programs that did not get off the ground because of lack of support. I suppose that's because the programs that did not get off the ground because of lack of support. I suppose that's because the programs that did not get off the ground because of lack of support."

Sinclair's own stand was empty until 1 pm because the

ZX Microfairs have become a regular fixture for Spectrum and ZX81 users. Paul Liptrout toured the stands to bring you details of the most interesting new products



David Pridmore — a winner with Star Defence

company's van broken down on the North Circular.

Here in Home Computing Weekly's exclusive selection of the new products at the Microfair:

Three 21-year-old university students took just five weeks to write *Halls of the Things*, an animated adventure for the 48K Spectrum. They are Martin Howley, Paul Macdonald and Kevin Brimble and the programme is £5.50 from Crystal Computing.

Private wars and dad were programs when David Pridmore, 17, was handed a colour TV and £250 by BBC managing director John Sothby. David, studying for GCSEs, comes from Hoxton, Derby, and won *Star Defence*, on sale at £4.95 for the 16K ZX81. BBC also launched *Pot Power*,

two games and two utilities, at the same price, for both Spectrums.

Oxford Computer Publishing is adding to its range at the end of the month with a Full Screen Editor/Assembler, £5.95, and *Program Manager*, £8.95, both for the 48K Spectrum. *Program Manager* is 18K of machine code written by Oxford's 16-year-old software developer Francis Amler. Others were *Test Tool*, in Spectrum and ZX81 versions, and *Master Tool Kit* for the Spectrum, both at £9.95.

EDL Software Inc has brought out new software for sale with an £19.95 Digital Travel. Using its packed map, visitors can be tracked on the screen — via 16K ZX81 or Spectrum — and played out on a ZX Printer. The proposed software adds machine code for

later standard shapes and a rescue option.

Over 200 software launches for new Spectrum titles — *Clash of the Titans*, *Tube Cabs*, *Pendulum* and *Spectrum*, all at £1.99. *Demon Knight*, £9.99, and *Demolition*, £6.50.

Terry Mosley, a marketing specialist who has been running Acorn Software part time since January, showed three new 64.5K games available for the Spectrum — *Front Machine*, *Frontier*, *Program*, *Crash* and *Front*. And there was also a new educational computer £4. Mr Mosley said: "I hope to go full time eventually."

From 'n' Micro Products had its Spectrum console on display. *Crash* £7.95, it is made from corrugated board, laminated in black vinyl, and suitable to hold Spectrum and printer with power supply inside.

Here and now for Spectrum programmes are on a £1.99 cassette from PDQ. Called *TipSecrets*, it is a menu-driven, contains some useful POKEs and a lot of copyright. PDQ also had a £1.75 Spectrum dust cover in blue PVC.

CCS gave the first public showing of its novel Core Crapper program, costing £5 for the 48K Spectrum, which simulates a 30-acre wheel farm. By taking the right decisions — on ploughing, spraying, firing staff and so on — the player can build up wealth of £100.

John Isaac Steele, 26, has written a new machine code game for the 48K Spectrum. Called *The Wizard's Warden*, it costs £9.95 from Aberrant. Mr Isaac Steele is a staff leader in the computer department of Aberystwyth University — hence the name Aberrant.

SPECIAL REPORT

Kempston Micro Electronics, best known for its peripherals, brought out new conversion tapes to allow more games to be played using its joystick. And the firm is launching three of its own games at the South Coast Computer Fair, which opens on Thursday.

Speech and music for the ZX81 and the Spectrum are offered by two new plugin modules from Timebase, which also publishes a range of computer books. The ZX84 Sound Box, with its three-channel microchip, has a built-in amplifier and speaker and an external signal output socket can also be used for records. It costs £28.95. The ZX Speech Synthesiser costs £35.95. They work on both computers and other peripherals, like RASB packs, can be added.

DLan, short for display language, is a new commercial display system for the Spectrum which, says Campbell Systems, is ideal for shop windows. One paper will be planned to use it for title pages on two video tapes. DLAN, no cassette at £7.95, allows the choice of up to 11 type fonts.

Assassin Software, on up just two weeks ago by retailers Dave Town and Keith Hudson, showed its first tape — a Bopper-type game called Todd's Treach, at £5.95 for the 48K Spectrum. In about a fortnight there will be a second, Mogadishu, a jumpers and dragons-type adventure for the Spectrum, costing about £6.95 and planned to be the first of a series.

Richard Shephard says his new game, Devils of the Desert, outlasts his best-seller Transylvania Tower. Costing £6.50, the new tape is a 3D platform adventure for the 48K Spectrum. The firm, run by Mr Shephard and his wife Elaine, is now on its fifth at Maidenhead High Street road. Their new commercial manager is John Shawman, formerly with Deane, and Mrs Shephard is joining the firm full-time from October.

Two new adventures were released by Phoggo Associates. Both costing £5.95 for the Spectrum, they are The Phoenix's Tomb and Magic Mountain. These more tapes for the 48K Spectrum

are due out over the next few weeks. They are Greedy Goblins, a £4.95 adventure, Black Prince, an arcade game priced at £3.95, and The Forest, costing £9.95, which simulates the sport of wilderness and comes with a comprehensive booklet.

Up to six computers can be linked together using Multilink from Network Computers Systems which says that end-users can be saved by clubs and schools because only one cassette player is needed for each group of computers. Prices start at £6.75 to connect four Spectrums or Jupiter Acos to £19.70 for an BBC, Gai, Dragon or Lynx system. There is also a range of cables.

New software house Protek grew out of an Edinburgh marketing consultancy. Headed by an mechanical engineer Gordon Hewitt, it now has a £14.95 arcade interface for the Spectrum and three tapes — two for the ZX81 and three for the Spectrum. Protek's flight simulator, for the Spectrum, simulates a BAe 111 coming in to land in, impressively enough, Edinburgh Airport.

Called Airbase, it costs £3.95.

Two challenges are also underway by Tuxton in its two new Spectrum games, both priced at £3.95. In Android One The Kestrel Run — the first of a series — you have to destroy a reactor, dodging obstacles and overcoming enemies, and Gun Law sets you as a heavy hunter.

B&B's Second One Golfed, for the Spectrum, and, at less than £15, a tape tape for the Spectrum. The company already markets a version for the Dragon.

Queen, a two-man partnership calling themselves Mike Hale game for the Spectrum, had a busy weekend — as seen as the Manchester club they went off to the Birmingham Home Computer Show.

Two new products launched at the show by Canal were Bio-Prop 61, a ZX81 EPROM programmer at £24.94, and an eight by eight multi-matrix card for the Spectrum costing £21.27.

Educational specialist Calyx featured its two tapes for youngsters, at £7.95 each right or



Nicola, from left; Maria Hunter, Neil Macdonald and Susan Bristol — winners of Hacks of the Things.

five programs per tape, and its four-program tape for G-level or CBI Chemistry at £3.50.

Norman Robinson, trading as Robson, was selling his first tape, Zap the Alien, a £3.95 word game for the Spectrum.

Andrew Oliver, 18, has written two games for recently-formed Apogee Software. They are Galactic Jet Bros and Snake, both at £4.95 for the Spectrum.

Feller Micro Systems showed its FDS keyboard — which includes a space bar — for the ZX81 and Spectrum. Costing £39.95, it replaces the original casing and, says Feller, can be fitted in 10 minutes. Feller also has dual and Custom-type modules for the Spectrum at £49.95 and £25 respectively.

Money and free champagne were being dished out on the Automata stand. The champagne was not enough, but the "Puzzle pounds" were, in fact, taken off by all six Automata customers. Included was Automagical, £6 for the 48K Spectrum, and its range of Puzmag games for Spectrum, BBC, Dragon and ZX81.

Cold Mine, a £9.95 Spectrum strategy game, was brought out for the show by 64's friends, which makes a wide range of software.

Video Software says its new cassette, Superwar 48 for the 48K Spectrum at £5, gives you a personal Warhead system, allow-

ing up to 48 pages to be created and recalled on demand.

Software had an interface for Tuxton's colour printer/plotter at £35, with an improved version out soon.

PIZ is an interface card for the ZX81 which, when plugged into a £3 expansion box, allows the ZX81 to use disc drives. Musicians, which sells PIZ for £15, says it will SAVE an 8K program in 20 seconds and LOAD it in 10 seconds. Musicians also brought out three new games for the 48K Spectrum at £4.95 — Art Attack, Alien Invasion and Trug — all written by 17-year-old Nigel Swan. Coming soon: Sounds Easy, a Spectrum sound processor, and a 3D sketching program called Basic Eye View.

Byword, a retailer until now, brought out its first program — Hidden City, described as "an adventure with a dash of 'em-up game" for the Spectrum, at £3.95. Propaganda from Brown started trading from Brown in January because he was looking after his sick wife.

ACF showed its Programmable Joystick Interface, costing £3.95 for the ZX81 and Spectrum with a free Joystick program called Video Quaffin. ACF, which also markets projects, says the new joystick supports the specifications of its joystick Module II.

Multitron £7.95

Sumlok, Royal London House,
158 Deansgate, Manchester M3
3PL

Now and again a program really catches your fancy. This one was one better — it really got me excited. Excellent graphics — the variety of targets and the way they move, fantastic!

There are in fact, six screens of different targets, and each attacks differently, using, clipped, jagged, wretched drive bombing.

Best of all is the software. They move a lot then disappear their shells and become opponents to your fire. To cope at all, on clearing the last screen, you have a refreshing open-loop-the-circle-the-road device to complete.

But it's not just the variety packed into an expanded VIC that got me. There's the same-time supply. The more you just looking on the far track, the supply runs down as you fire and is slowly replenished when you pause.

Anyway, some of the targets will stop at their tracks rather than walk into a constant wall of vertical fire.

The border-rich of all, other programs give me, a few such powerful means for you to start before it attacks you, thus allowing you to get your breath back but you will be as frequent as possible. And you get free from the top 1% of games experts may find this on the way out. But for the rest of us it's out and our winner.

B.B.

manoeuvring	90%
playability	95%
graphics	95%
value	95%



Galactic Abductors 16K £7.90

Aiming Computers, 16
Balsome Gardens, Harley,
Surrey

This is a nice version of an old plan. You control a gun which can be moved from side to side along the bottom of the screen and with it you must proceed fire beams into the air to destroy swarms of bird-like creatures.

These birds are tough to kill and require several direct hits before they lose the drive. From time to time the birds lay eggs

Just when you thought it was safe to switch on your VIC...

In these games, you'll find yourself under attack by opponents from tortoises to anti-aircraft guns. Fresh from the fighting, our reviewers hand in their battle reports.

Chopper £6.95

Sumlok, Royal London House,
158 Deansgate, Manchester M3
3PL

Chopper isn't very fast game, and though keyboard control is available I wouldn't recommend it. You control a helicopter bombing tanks, tanks and missile launchers. Ranged against you is an anti-aircraft gun moving side-to-side very fast firing random shots.

Flying hours are further curtailed by missiles from the launchers and this pilot was not skilled enough to discover whether the fire-flying missile could be dodged long enough to earn bonus points.

Flying over the ground or

screen takes an elementary navigation device, but it's hard then cranking into the sky jumps very slow even a little bit and makes a high score. I got nowhere over it.

Graphics are redneck — the machine gun rotating chopper blades is a nice touch, but the chopper crashes could be sparser. Ranged efforts not particularly easy.

Amusing 16K is EPPLAT™ produces nothing. Once a program you may in all the power fails. Is this a software device for encouraging additions, I wonder?

R.F.

manoeuvring	50%
playability	60%
graphics	60%
value for money	70%



Man on the Run £6.95

Sumlok, Royal London House,
158 Deansgate, Manchester M3
3PL

You are surrounded by a band of attackers positioned around the edge of the screen. They attack two at a time and try to destroy of your four lives.

You can move about the screen by using the keyboard and can fire your gun to kill the attackers.

Attack control can be used, but the more I found that keyboard control was better. During the first few games destruction of your defences is a little difficult but experience soon finds your men darting around the screen bringing off the enemy.

After disposing of the first generation of enemies a second set appears, moving faster and with more power. A bonus is added to your score if you avoid losing a life.

A straight forward game, ideal for children, who will not doubt play it for hours on Saturday afternoons.

V.J.

manoeuvring	90%
playability	95%
graphics	95%
value for money	95%



which fall to the ground, hatch and shoot nasty little objects which run after you and try to destroy it.

The loss of all men results in your losing a life. You start with five lives and pick up extra lives as you score points.

A very smooth game using an enlarged screen, excellent graphics and unusual sound.

A.W.

manoeuvring	70%
playability	70%
graphics	90%
value for money	90%



Pros and cons of the Oric

As an Oric owner who previously owned a Spectrum machine, I'd like to make a few points following John Skellin's letter in your issue of May 17.

Firstly, no review that I have read said anything about Oric One "wiping the floor" with the Spectrum. From my own experience, neither the One nor the Stellar version of BASIC is any more difficult than the other, and the Oric's report modes are just as good as the Spectrum's. The Oric does have syntax checking, but the program has to be run before it will operate.

On the subject of tape loading, I feel that John Skellin's complaints are a bit unfair — Stellar machines are notorious for their tape control. I might add that I always use the flat transfer rate, and have never had any problems with it.

I appreciate, though, that some of the blame must rest with Oric itself. There is no excuse for marketing a new-release product. The memo was first advertised last November. Then on the January/February issue of Oric User, it was reported that a launch party was held in late-January! And because of rushed marketing, the memo was not actually had a lot of faults, some of them so fundamental as the wrong chips being used.

Production errors aside, I realise that the differences between the two machines exist on. The One's main disadvantage now is that there is a distinct lack of software available for it. This situation is slowly but surely being rectified, with adverts gradually starting to appear in magazines such as HCW. Mark Phillips, Barnleigh, Hants.

New address for SOBAT

The SOBAT computer club (London) has a new address at last. Although the club will write members at their London, details, membership forms and should now be obtained from the address below (for phone 01-556 9415, weekends only).

Due to rising costs, we've also had to put our membership fee up to £4 per session.

T.A. KISSARD, 825 Berridge House, Millfield Road, London NW6.

Send your letters to Letters, Home Computing Weekly, 145 Charing Cross Road, London WC2N 0EE. Don't forget to name your computer — the best letter could win £5 worth of software. Queries cannot be answered on this page



Program's Chinese puzzle

Thank you for reviewing my Chemistry program in HCW issue 12 and the favorable comments on it.

However, I would like to clarify the reviewer's point about a bug which caused "Chinese" text to appear in the Compound program. I loaded the different courses, and could not induce the Chinese to show (in fact when I included a few 800-over 1). The reviewer suggested including line 3080 over 4, but this should not be necessary.

However, if anyone has bought an Alderson tape which is not perfect it will certainly replace it immediately.

Malcolm Barnes, Alderson Fellowship, Hall.

Puzzled? Ask a teacher

I can appreciate David Cox's points (Dear Woman's View, HCW 13) on the problems faced by the microcomputer novice. Two years ago I went into what was then the only computer shop near my area and asked for a book on computing for the complete beginner. I was unpleasantly told an American book full of jargon.

Things are a lot better now that more books are available on the subject, but when problems arise, the best solution is to contact your local college or adult education centre. Many of these now run courses in BASIC, some as evening courses and a few during the day, and the teachers there will make a far better job of explaining BASIC problems than a book ever can.

Heather Robinson, Welles, Nottingham.

Better Bloboids

I would like to make a simple suggestion for improving the Bloboids game for the Oric-1 published in HCW 12.

As it stands, the game lacks strategy. My suggestion allows the Bloboids to expand your ship. Add the following line:

IFB IF SCRN (LY+1) AND SCRN (LY-1) = 64 THEN EXPLODE - GOTO 7000

and change line 601 to: IF Y < 1 THEN Y = 1

S.J. Skinner, Brixfield, North

How to help the novice

Further to my *One Woman's View* piece in *BCW* 13, I thought I'd offer a few suggestions on how the computer industry could help the computer novice.

Computer manufacturers: select a dozen named beginners from those who send in advance orders prior to the launch of your new book. Offer them a free computer if they take part in a test of the service's ability to understand your planned manual.

Cypriote evening schools at your office: where the beginner will each be provided with a computer and proposed manual, enable a supervisor to check that nobody's confused. After each session, the participants must hand in a letter of the process they learned and/or understood.

When all the sessions have been completed and fully attended, reward your manual on the basis of what you have learned from their answers, in good time for the commercial launch. And don't forget to give the winner a copy of the final manual.

Authors of explanatory books: do proof read your work carefully before printing. Be make sure, as this is a new computer, that you fully understand it.

Don't allow your expert eye to convert you that you could not, possibly, make mistakes in trying in the (to you) obviously simple programs your computer to illustrate your text.

Be as much as possible, to be sure. Be it, because you cannot lay your hands on the right computer, illustrate just text with reproductions of letters printed from other makes of computer.

And in your desire to be first on the market, showing the fast track, try not to lose sight of the fact that you are writing for beginners who are disoriented to direct your errors.

Magazines: when treading the tightrope between advertiser and reader, try to step down on the reader's side. We know you intend to carry step errors happening, but they do, so please print the corrections and don't just ignore them.

And above all, devote just a little of your space each issue to a beginner's page, where simple questions get simple answers.

Doreen Cox, Dagoberto, Essex

W Software reviewer

Why libraries aren't a bad idea

I've been interested in computers for some years now, and while computers have decreased in price, software has shot up to fantastic levels. I am sceptic that programs have to be priced at around £3 to cover their costs, but prices of £35 upwards for some programs are beyond most buyers' pockets.

An obvious alternative in these times is software libraries, which rent computers out for £1 to £2 a time. But some software companies have raised objections to the libraries and made it difficult for them to operate.

While at criticising the software houses, it seems to me that they are the only ones who can help the less well-off computer users. If the top software houses got together to form a library of their own, it could prove beneficial to everybody.

The library would be able to monitor respected price operators directly on the computer's behalf. It would also be able to set up a rating system, so that all software passing through the library could be graded on several categories to give customers and buyers a better idea of what it was like.

Once started, these libraries could be very successful, and I suspect that we, the consumers, would give them our full support. How about it, software companies?

David Poole, Wotton, Cheshire

Mystery of the missing FORTH

I was interested to read Mark Phillips' *View* (*BCW* 13) in which he quite rightly criticised the advertisements used to sell microcomputers.

I liked, however, that another kind of approach is also all too prevalent, especially among some of the newer products: that of promising an "extra feature" which never actually materialises. One example is the "line FORTH cassette" promised with every 48K Onco-I ordered.

I ordered the 48K model at the time these ads came out (this was when the Onco was still available by mail order only). When, after eight weeks, the computer arrived (by which time I could have bought the same model on a shop,

then saving myself £5.50 post and packing), no FORTH cassette was with it.

What did come with it was what appeared to be a very long documentation program on one side and a patch on the other I ter "apposed" because I have not yet succeeded in loading the other, even at 300 baud. I have written to Onco about this, but as yet have not had a reply.

I had been looking forward to the speed of FORTH to enable me to write reasonably fast games without having to resort to machine code. Now I am obviously reluctant to buy the FORTH cassette from Onco. Are there any soft ware companies out there who have produced (or who plan to produce) a FORTH compiler for the Onco-I? David Head, Southam, Northam Down, for Onco, and "ALL FORTH" signs have been dispatched to most order customers. If anyone has not received them, we suggest they write to Onco at Concord Park, London Road, Ayles, Bucks SL3 7DE. The offer was only for people who ordered a 48K Onco-I by post."

Helping out the TI handbook

As a newcomer to home computing, I have found David Gray's programs for the TI-99/4A very helpful.

The handbook supplied with my machine is fine in most areas, but the examples are not particularly good at indicating what additional uses the various commands can be put to. I would particularly appreciate an article on file handling.

E.J.M. Wilson, Here

Micro owners of Belfast, unite

A friend and I would like to start up a club for home computer enthusiasts in Belfast. The trouble is, we don't know how to start getting in touch with like-minded microcomputer owners in the area.

I'd be very grateful if you could print this letter asking anyone who's interested in starting such a club to write to me at the address below.

F J Hughes, 10 Whitelock Street, Belfast BT9 7AU




10

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Make drawings on your 16K ZX81 with the maximum of ease using my Picture Maker program.

It performs the fundamental operations of an image processor and the drawings can be filed into — or recalled from — up to 16 strings as well. And up to 16 full-screen images can be stored.

It is really important to type the first eight lines in exactly as listed — failures to do so will probably result in a crash when the program is RUN.

In line 490, T% is a constant: the 30 graphics characters in the string order as they appear on the keyboard.

The various graphics statements in this program read as follows:

```
##"TO WHICH FILE?"
##"WARNING: FILE
  "IN USE"
##"PRINT WHICH FILE?"
##"FILE" IS EMPTY"
##"LETTER TO SUBROUT
  FILE OR 3 TO
  CLEAR THE SCREEN"
```

FAST mode is recommended for this program. RUN, to display a screen. Later any key except BREAK to change this character.

Note: to obtain a space, enter NEW LINE, and to obtain 4 enter shifted P.

To obtain an address or graphics character, first enter GRAPHICS followed by the appropriate character. Keywords are not available for display.

To change the position of the displayed character, enter shifted keys 1 through 8 (1 through 4 are for diagonal directions).

To draw, enter FUNCTION then operate as described above. To stop drawing, enter FUNCTION again. To draw at one point only, while in "non-draw" mode, enter shifted F. To file an image enter shifted F, followed by the letter (A-I) of the string into which you wish to file it. If a warning flashes up, enter the same letter again to confirm or to number letters if you wish to keep whatever is already filed there.

To display a previously filed image, enter shifted D followed by the letter (A-I) of the string containing the image required.

To clear the screen, enter SUBROUT followed by "0".

To clear a string (A-I) enter SUBROUT followed by the name of the string.

To clear the screen, enter SUBROUT followed by "0".

To clear a string (A-I) enter SUBROUT followed by the name of the string.

Picture it easily with your ZX81

Your work may never hang in the Tate Gallery, but you'll find picture making fascinating and fun with Nick Godwin's program for the ZX81 with 16K of RAM

To SAVE the picture enter shifted "S". This displays a string input cursor. Type the program name of your choice, but do not press NEWLINE.

Turn on the tape-recorder (set to RECORDED) then press NEWLINE.

To STOP the program, enter shifted "A", not

BREAK. To restart it, with an image stored, GO TO 300.

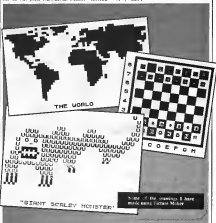
It is possible to transfer an image from Picture Maker, to another program. If you wish to do this, before you LOAD Picture Maker, set RAMTOP by the following procedure: POKE 16384,15 NEXT

When you wish to transfer an image, first display the image required. Then STOP the program by pressing shifted "A". Add the following character codes:

```
9000 FOR J=1 TO 764
9010 POKE 234*J+PEEK
  16384+1,POKE 2340
9020 NEXT J
```

Then GO20-9000.

When the program stops (input code 0-9020), the image is now generated above RAMTOP. The program can now be mirrored, or another program LOADED. The following four lines will call the image into ZX 9000 DIM 23174, 9010 FOR J=1 TO 764 9020 LET 23=CHR\$(PEEK 234*J+1) 9030 NEXT J



[illegible]

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COMMODORE 64 GAMES AND UTILITIES

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DEALER ENQUIRES WELCOME

0223

Figure 21. Overall computing results in June 1997

It's all go . . . for your Spectrum

Action's the name of the game in these new Spectrum releases, rated for you by our team of reviewers

3D Tank £5.45

Microgram, Unit 3, Stone Hall Industrial Estate, Salford, Warrington, Essex

Enter an original game, this. You are cast as defender of a bridge, across which the computer is attempting to march a line of tanks.

From the covers display the bridge looks a long distance away, but a very wide. The tanks cradle into the screen stage right for every one that manages to get near left, you lose points.

To prevent them you have control of a curiously shaped anti-tank gun (what else?), seen in perspective, which is capable of both lateral movement and variable angle of attack. The field of fire can also cover the entire bridge — you.

The controls are instantly laid out and the display more than adequate, if not absolutely brilliant. The game is definitely addictive and difficult enough to ensure that you will return to it again and again. Not too many try.

R.H.

instructions	80%
playability	90%
graphics	90%
value for money	70%

★ ★ ★ ★

Gulpman £4.95

Microgram, 230-235 Lavender Hill, London SW11 1LE

"Not another Pac-Man derivative?" I hear you? Well yes, but let's be fair — this game was one of the first to mimic its way on to the Spectrum, and it has survived remarkably well.

The object of this version is to scrape apples from a menu collected by four greedy

Froggy £5.95

DAL Software, Dept T5, 2 Poynd Close, Swindon, Wiltshire SN1 1PU

Variations of the game abound, but this is one of the best I have seen. Everything, from instructions to the game itself, which uses every available byte on the 128 Spectrum, is highly professional.

The aim of the game is to keep your frog across a three lane

road avoiding various vehicles, then across a river by hopping on lily pads and, in your home town. Crickets and snakes are out to eat you, and you have a limited time in which to get home.

An unusual game is a fairly frog which needs rescuing from a log for bonus points. There are four skill levels and seven speeds, all of which increase automatically the more often of the successful attempts.

Colour, sound and graphics are used superbly producing a convincing display and an extremely addictive game. A high score chart is kept and the "just another job" command is rampant. I heartily recommend it to frog lovers everywhere.

R.E.

instructions	100%
playability	100%
graphics	100%
value for money	90%

★ ★ ★ ★ ★

Sword Fight at Midnight £4.95

Family Software, Sonningthorpe, North Rode, Wokingham, Berks

Against a well-drawn night sky and landscape, two sword fighters do battle for honour — or wherever else you please, really.

The graphics are superbly rendered and the tale well chosen. My biggest problem with the game was that I reserved the instructions with the tape and had to work it out for myself. Packaging is a bit tough, like Swordfight is a two-player game, and this is probably an unjust drawback. The thought

of two people crouched over a Spectrum keyboard pounding away in the heat of battle, is enough to cause a shudder or two. One quibble might easily be real feedback as both swords to reach the keys.

All the movements are short — thrust, parry, swing, retreat, advance or parry — clear and very pretty. It really can be a two-person affair, though, or maybe have the computer fight one side.

Good game, shame about the mechanics.

R.H.

instructions	0%
playability	10%
graphics	60%
value for money	60%

★ ★

guards who only come when they catch you. These classes are truly magnificent and a strong point of the program.

Each apple muncher is rewarded with a delightful sound effect and ten points. For each 1000 scored you win nothing but the computer eaters move a little faster.

To keep them off you have twenty lives for use in panic situations. If you get bored with one game you can choose one of 36 others complete with no less than 41 skill levels chosen at

Graphically the game is limited — it would have been pleasant to see some sort of running action from the player's perspective and a little more emotion from the guards. But these are the only criticisms of an otherwise excellent game.

T.E.

instructions	91%
playability	50%
graphics	10%
value for money	10%

★ ★ ★ ★ ★

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Program power for you and your TI-99/4A

Starship Pegasus £11.00

By Neil Patricorn from
Stamens Software, 19 Alameda
Road, Stockport, Cheshire,
SK4 5AH

I doubt if you will come across a more diverse and outspacious collection of life forms as there you will encounter on command of the Starship Pegasus. Your mission is to make contact with these creatures in order to exploit their planets for as many scraps, technology and mineral points as you can obtain.

If they prove unfriendly and are later found you may take a chance and open fire on their planets, exploding it after their destruction. Underestimate their intelligence, however, and you may find yourself under attack!

For the seasoned commandeer there are over 100 quadrants to explore, and questions being chosen for each planet. All have their own systems which in turn have their own planets. Some of these will be unpopulated and make new planets.

Your journey is now

By popular demand, we take a look at a selection of games available now for the TI-99/4A. Read on for our reviewers' verdicts — and star ratings

entirely a smooth one in space, asteroids are always waiting to launch an attack. These make frustratingly evasive opponents in an ever change of life.

Graphics are not a main feature of this program, but where used are effective.

If you survive your mission you may be awarded a medal — but not always, as my husband found out when he boomed down to a planet, was greeted generously but then captured for good!

J.W.

instructions	90%
playability	90%
graphics	90%
value for money	90%

☆☆☆

Bluegrass Sweepstakes £7

By Postmaster from Stamens Software, 19 Alameda Road, Stockport, Cheshire SK4 5AH

Whether you enjoy the international flavor on the go-go or not, you will like this horseracing game for up to eight players.

Eight horses are displayed on screen together with their names and starting prices. Data are played and the race begins. The right horse wins arrives the screen from left to right and winners are paid out on the

first, second and third horses across the line.

Each player enters his or her name and the computer will then display the name and the amount that person has available to bet with prior to each race. You are given 1000 dollars to begin with. The winner of each race receives a sweepstake ticket in addition to any winnings and this is used in the next race in which the numbers are the winners of the previous eight races.

The graphics and sound capabilities of the TI99/4A are used to excellent effect in this very well thought-out program.

It is not a game where you constantly involved in the action, but a sweepstakes a very entertaining programme for children and adults alike.

B.B.

instructions	90%
playability	90%
graphics	100%
value for money	80%

☆☆☆☆

Astro Fighter £3.50

Christmas Campaigning, #
Platinum Class, Walsland,
Hants

The aim of the game is to shoot down X-wing fighters by aiming them in your sight, using either keyboard or joystick. Six X-wing fighters must be shot down to prevent your own craft running out of fuel.

It's relaxing to play at first, once the combat actually moves the enemy fighter, not your craft. The main way fixed.

In-program instructions were adequate, and the game seemed robust and well tested. Inevitably, though, a game written on TI Basic is going to be very slow and rather boring to play.

B.G.

instructions	80%
playability	90%
graphics	90%
value for money	90%

☆☆

Pen the Pig £6

Stamens Software, 19 Alameda
Road, Stockport, Cheshire SK4
5AH

The idea of this game is to trap a pig running around in a large pen and to contain it into one of two smaller pens located in two opposite corners.

The pig is represented by a bouncing ball, and you can "draw" walls in order to contain it by using the four direction keys, B,U,D and S. Occasionally the pig will break through the wall you have drawn.

The program loads easily and there are two skill levels. At first even the game proves to be quite easy. But in level two you draw an invisible shield on the screen instead of a wall, and this time the game becomes very much harder, as you try to

establish the location of your shield.

Such instructions as are necessary are printed on screen at the beginning of the game and are adequate for this rather unimpeachable programme.

All in all I found the game

rather boring, with elementary use of graphics and sound.

B.B.

instructions	90%
playability	90%
graphics	90%
value for money	90%

☆☆☆



Games that pit your wits against the Spectrum

Backgammon £5.95

Price: £ Handwerks Menn, Cloisterly Place, London NW1 6SD

Why buy a more game when you can buy the board game for less money? Answer: because a game as good as this Pagan version of Backgammon can be more enjoyable than the original.

The graphics can be better than the original board and counters. Those are. The computer may play better than your human business opponent. This does, A minor game might teach you how to play, but a board game can't. The designer never made an upgraded version of this version that is excellent value.

You can choose the board game. You can choose the program by playing your own game. And again. And again — and you think you're not a right. And even then the program will probably defeat you. I found it easy to lose at level one, but could not beat it at the highest level, four.

You have the option of throwing the dice yourself if you don't trust the Spectrum (or those who very lucky doublets, so you could choose by finding a fair throw, but I enjoyed watching the computer rolling dice, but for the player and not for the dice, which make firm that one of the Spectrum graphics.

Although a marvellous implementation.

N.W.

instructions	100%
playability	100%
graphics	100%
value for money	100%

★★★★★



Sorcerer's Castle 48K £5.50

Micro-Gen, 24 Apricot Crescent, Brixton, Berks

Sorcerer's Castle gets off to a slow start before the game really even begins. While the game is being set up, you are supposed to be concerned by a clock (or what, on the other hand, is "work waiting for"?) What you really get is a sort of mouse head slowly making its way round towards 12 o'clock, with a rather ballroomed keep where it turns.

After this, you can choose which character you want to be, draw off to wizard, with intelligence, strength and dexterity bonus, appearance accordingly. Then you have a choice of three in fact, from mouse to flea. Note the game proper starts — but without prompt if you try to go North at your first turn.

Your task is to reach the sorcerer's castle and break down his tower. At any time during the game (which, of course, you have been thinking) you can press in to examine a map and find out where the sorcerer is, and the state of the game will open to you.

There are a lot of things to move, and many things to pick up on the way round.

But despite all this, the longest game I managed was about 10 minutes. A good idea in principle, which didn't work out in practice.

B.B.

instructions	100%
playability	100%
graphics	100%
value for money	100%

★★★

MIKRO-GEN



Software for your Spectrum



The Knight's Quest 48K £5.95

Phlog Associates, 99 East Green, Epsom, Surrey KT 8 8ER

This adventure, in which the hero has to find treasure and return them to Camelot, contains features found in many different types of adventure.

For example, there are puzzles to be solved, including the usual one of discovering what words the program understands.

Its vocabulary is allegedly 150 words, but I haven't found them all. This means the program has a lot of potential — but there may be up to seven seconds delay as the program checks your input.

As well as all the standard adventure features, the game offers a degree of control, though the design was rather odd to kill.

Some locations are illustrated by a picture in the top left corner of the screen. There are no automatic or moving graphics, however, and no real-time action.

A "save" facility is included. All in all, quite a good case of the art adventure, which will give a good deal of play. My only criticism is the lack of originality in the design matter.

N.W.

instructions	100%
playability	100%
graphics	100%
value for money	100%

★★★★★

Masterchess 48K £6.95

Micro-Gen, 24 Apricot Crescent, Brixton, Berks

Chess players with a 48K Spectrum will find this program ideal if they are used to a partner. With levels of computer ranging from 1 to 8, both novice and expert will be guaranteed a good game.

You can choose the colour of the board, the pieces and the background to suit yourself, although I found the display quite nice on the eye as it was. Other options include setting up

the board — marvellous for beginners — suggesting the computer or suggest a move, and saving a game.

At level 8 the game is very fast, getting progressively slower as you approach level 1, which is the way the concerned is chess-playing chess.

I have seen other chess games for computers, but as far as I am concerned, this is the best so far, and should give hours of enjoyment in the chess hall.

B.B.

instructions	100%
playability	100%
graphics	100%
value for money	100%

★★★★★

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Gridrunner \$8.50

Licensed, 49 Moore Plaza,
Tarry, Illinois 61226-5875

Anything else about the Atari 400? No, not at all — it can do it! My intention was to write a review, but I decided to try it out. I was glad I did.

Gridrunner is the fastest, most, fastest game I have ever seen. No Mouse, the events and programs for Gridrunner, has taken great pains with this game.

To explain some time in the future, it's a great grid has been set up as open, but has been affected by and bugs using the power to multiply. You, as your Gridrunner, eventually, must destroy them.

There are several types of bugs. One, the most common, is a blue computer, which when they fly in an obstruction. When they fly in and out, they make and fall as easily as possible. The X-Y system and point of energy through the end in the back of flying you. There are 10 different grids to be played through.

Gridrunner is a fast idea as a slowly decaying world of pacman's memory. As the price, it is the best value for money around.

instructions	90%
playability	90%
graphics	80%
value	90%



Kickback \$30

A Three-EMU cartridge From
most Atari studios

Kickback is based (loosely) on a little known arcade game, and based on American football. You can tell that because the game involves knocking out the opposing team as well as scoring goals.

You are given a clear visual view of the pitch, and must try to hit the constantly moving

What's new in games for your Atari

Marc Freebury takes a critical look at a cassette and three cartridges for the Atari 400 and 800

Soccer \$35

A Three-EMU cartridge From
most Atari studios

Soccer opens with a technically prolonged title page, then displays the various options. Any combination of up to four teams and two computer teams is possible, over four difficulties.

After choosing what you are presented with a typical March of the Day elevated side view of the pitch, which is easily marked out. The pitch consists of three score windows, so when the ball moves off screen, the whole pitch scrolls.

Controls and rules are explained first, all purchased by realistic whistles from the televi-

ble referee. The players themselves are very detailed and clear.

The computer plays a mean game, never letting a pass or losing a tackle even at level 1. This team manager was less than pleased at a stretch of 10-1 after 10 minutes.

The game can be played for 10, 20 or 30 minutes, although it's difficult seeing anyone play that long. There are some new touches in the realistic style of the illustrations, although I missed the crowd effect.

instructions	100%
playability	100%
graphics	90%
value	100%



Sub Commander \$35

A Three-EMU cartridge From
most Atari studios

Submarine Commander goes to prove that a life on the ocean wave is definitely hazardous. In this game, leading shipping convoys is your aim.

A clever opening page shows the skill level (1-5) to be chosen, then they go straight on to the main screen. This shows a map of the area of ocean, with your sub and the boats marked on it.

Also displayed are numerous data and controls — confusing at first but you'd get used to them.

Just as you can at high speed on the surface to a fleet, then submerge to see periscopes depth. A scored screen shows a very realistic screen, with the underwater ships showing up as blips.

Now line up on a ship, and go periscope. On the screen, the ship, one of four types of ship. The ship goes into the water and sinks, throwing huge waves upon the sea.

On the watch out, the ship have arms and depth charges, each down too deep could rip open your hull.

instructions	90%
playability	90%
graphics	80%
value	80%



ball in an effort to wipe out the opposing team and score goals.

A moving forward and goalkeeper attempt to stop you, and when they are goals to remove one of your three lives. Penalties are awarded if you let the ball hit your bowlers.

The game plays smoothly, with graduated difficulty levels and, if missed, sound of foot. Moreover, there is little complexity and I was reminded of those pump-pump, style TV games.

instructions	90%
playability	90%
graphics	90%
value	80%



What are rating does Home Computing Weekly
give it?



Gunfight £6.95

Sunlock, Royal London House,
198 Despatch, Manchester M2
3PQ

Programs from this company seem to be written carefully and with a high standard of attention to detail, and this one is no exception.

Two hole mice, one red and one blue, are placed in a random landscape of trees, rocks and bushes. In the two player option, one mouse's movement is controlled from the keyboard and the others by joystick. A single player can play against the computer.

The length of play is personalised at between one and nine minutes, and a score of hits is kept. Playable and fun, and extremely innovative to be let by a redactor off a rock. Cash can be shot out of the way, but not mine.

At the end of the game, the victor celebrates his win while the vanquished groans. The only innovation is a set-defined graphic values to guide the eye.

Not, of course, an original idea for a game, but this version should keep anyone John Wayne off the screen from high noon till high-noon past them at last.

T.D.

the screen	80%
playability	80%
graphics	90%
value for money	70%



Play fast and furious — with your VIC

These new VIC-20 releases aim to test your reactions to the limit. Our review panel took up the challenge...

Destroyer £7.95

Sunlock, Royal London House,
198 Despatch, Manchester M2
3PQ

Destroyer is another variant of the Star Wars type game. You control the movement of a destroyer and drop depth-charges on to earth on the sea below, in an effort for killing the fastest of these, one for the show.

Life is made uncomfortable by torpedoes and air attacks mounted by the VIC which end you life. Line four lives and you lose the game. The bonus for avoiding attacks for two minutes is to find the attack frequently doubled.

A good score? 400-450. Evading the best game-strategy is the real challenge. The heated earth sea-random events, so changing the faster is not necessarily

good play. Afterword will have seen it all before.

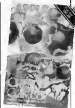
My review tape had no air attacks, either in battles or in program. I soon found the keyboard controls, too joystick controls for left, right and mine depth charge, but it was quite by chance I discovered other keys programmed in shoot down attacking planes.

Graphics are good, clear and colourful with suitable distracting sound effects.

I could find no way out of the program, once I'd started playing. This is a common fault of such games. Am I alone in finding it annoying?

Nevertheless, Destroyer is fun to play and so is an addition to the many variations available. My 14 year old loves it! R.J.

the screen	90%
playability	70%
graphics	70%
value for money	60%



Crazy Climber/ Apple Bug £5.95

Lynbrook, 68 Lane St, Liverpool
L1 1JN

In spite of the cover picture of a cartoon character, a game screen with a spear, Crazy Climber is in fact a game about a hawk man and his mission to collect flags from some very precarious scaffolding before it collapses. It is well packaged, loads of fun, great good sound, instructions and a fun to play.

The companion program, Apple Bug, gives a control over the destiny of a hungry beetle as seen in a computer randomly positioned apples in a simple maze.

Also, this program reflects the harsh reality of insects, for as the time passes in a very busy world, determined to put an end to our little friend's life.

If this happens you bug mine, once and watches his little legs as he is in a down-swinging fashion before expiring. "Forward again" comments the program dispassionately.

I would not recommend this pair to those of you with particularly sensitive nerves, but they're just the thing for tough kids to enjoy. A "best score" would be a good addition though.

T.D.

the screen	80%
playability	90%
graphics	90%
value for money	80%



Atom Smasher £9.99

Kosmi, 12 Church St, Slough,
Berks SL1 1PT

Another action-packed game from Kosmi. I think it's well over their other two efforts, but as an original game idea, well presented, efficient graphics, and an usual opposed war in one-handed VIC.

The target this time is a process that moves position round a water turbine while dodging the rotating disc-arm. Each hit adds another disc-arm to your

The penalty for slow shooting is more disc-arms which close in from the sides as the screen gets down. You can shoot away the disc-arms, but aged hits on process is the only way you to hit an advance.

Clashes with one of the ever-increasing number of disc-arms from one of your three lives, choosing too much time all ready advancing rapid at best speed for a short while. Anyway, all this is explained in the easy-to-read instruction booklet, which loads the game proper.

Control is by joystick, or Kosmi's standard key layout is well presented and easy to use. I did find the manipulation of the

key a bit strange to start with, though. For example, pressing F1 (being key) first turns the disc to face up then begins to spin up. So turning, moving a short distance, and turning again to face in cause a complex operation.

Kosmi has set high standard in the past, and while Atom Smasher is not in the familiar category/standard for pure action, it is a well a pretty good game.

the screen	80%
playability	80%
graphics	70%
value for money	70%



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When is a game not a game?

There's one big problem with CCS's programs: How do you describe them? CCS isn't known for the term "game." According to the company's marketing director, Tricia Peters: "Our programs are fun, and you can get a lot of entertainment out of them, but you can learn from them too." So far games, read forward and backward, seem, and you'll be amazed at the result.

The company's full name is Cams Computer Simulations, and that gives an exact description of what its software is all about. Its five current programs give you a taste of what it's like to own a small business. In Auto Club, for example, the player is in trade probably so that your company makes enough capital to take over Twin Horse Farm!

As well as a chauffeur, there are programs to let you take the role of farmer, a priest, an airline operator, and an oil magnate (getting your way against J.R.).

CCS was born in May 1982. Its founder and director is Melvin Lloyd-Jones, whose interest in computing dates back many years. Tricia said: "The need to work with computers in the shop where they took up a whole room."

Working as a consultant, Melvin became interested in designing business games for businessmen, and felt that there was room in the market for "more sophisticated" games that

CCS's programs aim to educate as well as entertain — and they aren't, it seems, bought just by joystick-happy youngsters. Candice Goodwin talks to marketing director Tricia Peters about the calmer side of a frantic industry

could show the full potential of home computers. So he wrote *Autark* for the ZX81, which was the micro he happened to own.

Autark is based on Freddie Luker's private business, and at appearance on the market coincided with Luker's new notorious financial difficulties. Luker's girlfriend worked to CCS's advantage, giving *Autark* extra, if anecdotal, publicity.

CCS now has the strapline games for the ZX81 and Spectrum, plus two games marketed for the One at One's respect. Two new games are on the way, of which Tricia says, "We have tried to cheapen the price but, but they're still what you might call intellectually stimulating."

The company is also working on material for "a new computer that's coming out" in close collaboration with the manufacturer. CCS's policy is, ultimately, to produce software for as many new machines as possible — unlike companies such as Prime and Robot, which concentrate on just two or three machines. Tricia makes a point of contacting every company with plans to bring out a new micro, with a view of presenting CCS's software for it.

For Tricia, the software business was something completely new when she started working for CCS last year. Previously she worked in the mail trade, as salesperson for a firm of

newspapers and wholesalers.

Her second most as a private social salesperson who could learn about computers, rather than a computer technician trying to land a sale, was a deliberate move. "Melvin's idea was to get away from the hobbyist market into a more commercial area" she says. "While visitors increasingly being introduced into the office, he was there to present in a way of introducing people to the idea of office micros."

"Computers are an obvious educational aid for kids, but they can also be used by people of any age who want to learn. We're trying to make the kids and means you do."

CCS started off selling its wares by mail order, but is moving increasingly towards retail, in connection with most software companies. Tricia would like to go further than this and have programs sold not only in computer shops and computer departments, but in outlets like record shops and newsagents, much as video films are now. "I think software will go in 'coming to the video market'," she said.

As well as director Tricia and Melvin, CCS counts of legal and financial advice Richard Peters, Girl Friday Anne Williams, and two full-time programmers who work at home. Most of the programmers' time is spent in writing new programs and converting old ones to new machines, though they do some



Tricia Peters — a more computer-aid approach

PROFILE

locking up on the few released programs CCS takes on. Triceh insists "we get a lot of programs sent in, but a lot more in our files."

Each CCS program takes about two weeks of total research to create a realistic business scenario, followed by six weeks of programming. The result, it appears, is pretty interesting. According to Triceh, "we have regulars who are completely addicted to our programs. We get a lot of orders from people working on savings for Airline. And Autodesk's interested also in orders from the coloring industry."

"The audience for our programs covers a broad range from about 15 years upwards. We sell a lot to colleges, just mainly the economics and business courses. And we're selling heavily in university towns."

CCS's experience shows that you don't have to be in the high-volume, highly competitive arcade games market to do good business. In tomorrow for last year was a healthy \$120,000. And Triceh added, "we're really seeing the breakthrough now."



CCS's programs let you try your hand at someone else's job.



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